

FLOUR MILL AND GRAIN ELEVATOR OWNERS SHOULD REFER TO PAGE 12.

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MILWAUKEE OFFICE,
124 Grand Avenue.



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INDISPENSABLE FOR THE SHORT SYSTEM.

• HAS STOOD THE TEST FOR YEARS, AND NEVER FAILED. •

MILLERS

We wish to say a few words in regard to WHEAT CLEANING, and to ask you whether our views are not correct. With the exception of some few cranks, who cannot be convinced, until it tells on their bank account, NO ONE DOUBTS the existence of a certain amount of dirt in the crease of the berry. Nature put it there, and there it is, and you can call it by any name you choose. It is a self-evident fact, that unless this dirt is removed, it must be incorporated with the flour, and to incorporate it, is to lower the grade. The BEST SCOURER or even DECORTICATOR, will not do more than to clean the exterior of the grain, and hence the removal of this crease dirt, requires a different method of treatment.

WE OFFER THIS METHOD IN OUR PATENTED PROCESS.

FIRST, thoroughly clean your wheat. Get it as clean as the latest and best machinery can do it. SECOND, SPLIT THE CLEANED WHEAT, AND THEN SCOUR AND BRUSH THE HALF KERNELS. You are then in a condition to proceed with your flouring operations, and by no other method can you get as good results.

NOW GENTLEMEN, consider that this **PROCESS** has been in successful operation for the last five years, and has been thoroughly tested in hundreds of mills in this country and abroad. IT HAS NEVER FAILED TO IMPROVE THE GRADE OF FLOUR IN ANY MILL WHERE IT HAS BEEN ADOPTED. **LONG SYSTEM MILLS, SHORT SYSTEM MILLS, BURR MILLS** have all been benefited. You need this Process and cannot afford to do without it, as we can convince you.

We offer you to carry it out with **THE GARDEN CITY BREAK MACHINE AND BRUSH SCALPER**, and will guarantee the work. If you are now making a good FIRST BREAK, then the BRUSH SCALPER alone is what you want.

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WE MANUFACTURE A FULL LINE OF WHEAT CLEANING MACHINERY THAT CANNOT BE EQUALLED.

The United States Miller

Published by E. HARRISON CAWKER, VOL. 24, No. 1. MILWAUKEE AND CHICAGO, NOV., 1887.

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SHORT SYSTEM AND BUHR MILLS,

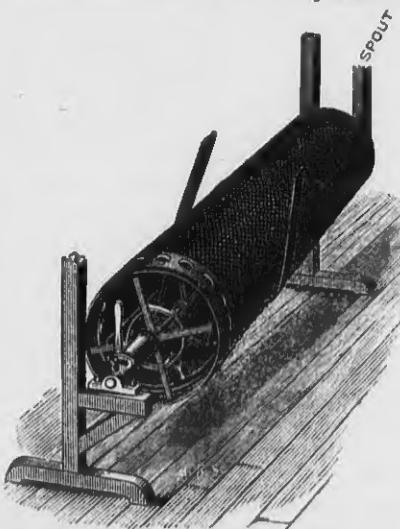
Since the introduction of short-system milling there is less occasion for serious consideration of the department of buhr milling. Short-system milling, as carried on by many millers, is not only short as to the number of breaks and as to the surface, but as to the number of separations as well, and for that reason may meet with favor from those who would otherwise mill by millstones. The great objection that has been found with gradual reduction milling by those who would mill in this way is that it is so complicated, and that about the same number of separations and reductions are necessary in the small mill as in the large one. This is true upon general principles of any kind of milling. Nevertheless, it is a fact that with the short-system a smaller number of reductions and a smaller number of separations are necessary, and it is true that quite satisfactory work can be done in this way, much more satisfactory than by buhrs, and with an outlay not so great as with a full gradual reduction mill. Thus it is that we say that the short system of milling will make further inroads into the buhr mills of the country. It is true that there is still a large number of buhr mills, a much larger number than is generally recognized, and it is also true that such mills are desirous of competing with their neighbors as fast as competition is necessary. The man who owns a buhr mill may feel entirely satisfied with it, and may feel that buhr milling is the proper thing as long as he does not have the roller mill to compete with. As soon as that becomes true, he must drop his prejudices, or drop his business. It frequently happens that he adopts the latter course. Prejudice is often stronger than reason. We say that the number of separations in short-system milling is much less than in the long system, which is true for the reason that the rapid reduction of the stock leaves a smaller number of classifications necessary. There are not so many different kinds of stock to be handled. The middlings are finer in size. There are flour and middlings and tailings and bran. There are only about two grades of flour and one grade of middlings in a small mill. That is, only such grades will be recognized. Of course there may be any number that one may choose to distinguish, however, the differences are not so apparent in this kind of milling as in buhr milling, or in the full gradual reduction mill. Short-system milling, if practiced in a very short way, is a good deal like buhr milling, only that the reduction is done on millstones. There is the same number of classifications

to be handled. Thus it is that it will meet with favor from those who still mill with buhrs.—*From The Millstone for November.*

PRINZ'S PATENT COCKLE MACHINE.

The name of Faustin Prinz is sufficiently familiar to the millers of this country, in connection with his inventions in mill machinery. We give in this column two cuts explanatory of the Prinz Patent Cockle Machine, which is now being introduced to the notice of millers. It is designed for small mills as well as for large ones, and the price has been placed at a figure which will attract the favorable attention of both classes of millers. Our illustration shows a single reel without frame, so that it can be placed anywhere in the mill, and so that any mill can find room to accommodate it.

The machine consists of a cylinder about



PRINZ'S PATENT COCKLE MACHINE.

70 inches long and 16 inches in diameter, mounted on a stationary shaft 82 inches long, which is supported at both ends, either as seen in the cut, or it can be hung up under the ceiling or in any other suitable position. Inside of the cylinder is a trough suspended on springs and agitated by the revolution of



FIG. 2. SECTION OF COCKLE CYLINDER.

the cylinder itself, to receive the cockle which is carried up by the indentations of the cylinder and properly discharged into this trough. By the agitating motion of this trough the cockle is discharged at the front end of the cylinder. The wheat enters at

the end of the reel which is rolling at the lower side of the same in the direction to the discharge, and by this rolling the cockle finds its way into the indentations and gets raised up and discharged into the trough. There is nothing complicated in the machine, consequently nothing can get out of order to make trouble and annoyance. It has only two bearings to oil, and oiling once a day is all it needs, as it runs only at a speed of eighteen revolutions.

The greatest convenience of the machine is the entire control by the operator. By a single lever seen at the front of the cut, it can be set either to take out any quantity of cockle, or if there is none in the wheat, it can be set to take out nothing at all. The indentations (see Fig. 2) are of a new design and protected by U. S. Letters Patent granted to F. Prinz. This enables the manufacturer to indent sheet-iron or steel plates. The machine is driven by simply taking a two-inch belt around the reel at any point. The above described machine has a capacity up to twenty bushels per hour.

In addition to the machine described above, the manufacturers are building machines of larger capacity with a grading reel, and also with two or more cockle reels. This grading reel is of a new type and is guaranteed not to clog up. All parts of this machine are readily accessible, not one being placed inside another, and in a substantial frame, with slow motion so that very little power is required.

These machines have already been placed in a number of mills of the manufacturers. FAUSTIN PRINZ & CO., 659 East Water street, Milwaukee, Wis., will take pleasure in giving millers any desired particular respecting them.

THE printed report of Col. W. F. Switzler, chief of the Bureau of Statistics on wool and manufactures of wool is now ready for distribution. It shows:

The number of sheep in the United States rose from 19,000,000 in 1840 to 51,000,000 in 1884, but declined to 45,000,000 in 1887. This decline occurred mainly in the Southern and Western states, notably in Texas, and is attributed in great part to the decline in the price of wool since 1884. The increase in wool in imports has about kept pace with the growth of our wool products, both having about doubled since 1860. While our product of woolens has increased since 1850 nearly seven-fold our imports have increased 62 per cent., but the consumption per capita has doubled.

SOUTHERN PROGRESS FOR ONE YEAR.

The Baltimore *Manufacturers' Record* which has taken great pains to obtain information concerning the industries and manufacturing enterprises started or put in operation in the Southern States during the year just ended, has published in its issue of June 1, 1887, detailed statistics of the industrial progress of the several Southern States. From them we summarize as follows:

	1885.	1886.
Alabama.....	\$7,841,000	\$19,848,000
Arkansas.....	1,220,000	15,240,000
Florida.....	2,019,000	1,050,000
Georgia.....	2,500,000	3,599,000
Kentucky.....	18,303,200	28,404,000
Louisiana.....	2,118,500	2,240,000
Maryland.....	6,068,800	8,765,000
Mississippi.....	761,500	774,000
North Carolina.....	3,290,000	3,076,000
South Carolina.....	856,000	1,208,000
Tennessee.....	2,692,000	21,240,000
Texas.....	3,282,000	5,694,000
Virginia.....	3,314,000	8,514,000
West Virginia.....	12,056,000	8,305,000
Total.....	\$60,812,000	\$129,226,000

It will be seen, in comparing the figures for 1887 with those for 1885, that there has been an increase of \$62,400,000 in capital and capital stock devoted to starting new enterprises and increasing those already existing.

The figures represent plant and labor for mining coal and ores, for manufacturing iron and steel, quarrying granite and marble, establishing cotton mills, cotton seed oil factories, flour mills, compresses for cotton, lumbering mills, woodworking establishments, ice factories, electric light works, tobacco factories, furniture and wagon factories, and a great variety of important and new industries. Included in the list may be enumerated as among the most important 28 iron furnaces, 50 ice factories, 68 foundries and machine shops, many of them of large size, 1 Bessemer steel rail mill, 26 miscellaneous iron works, including iron pipe works, bridge and bolt works, etc.; 8 stove foundries, 24 gas works, 34 electric light companies, 11 agricultural implement factories, 174 mining and quarrying enterprises, 16 carriage and wagon factories, 8 cotton mills, 23 furniture factories, 42 water works, 58 tobacco factories, 92 flour mills, 448 lumber mills (not counting small portable saw mills), including saw and planing mills, sash and door factories, stave, handle, shingle, hub and spoke, shuttle block factories, etc., in addition to which there was a large number of miscellaneous enterprises.

All this development represents so much money invested in machinery and plant, and so much paid for material and labor. It is scattered through fourteen States, giving to many thousands of persons the means of making an honest subsistence, building up centres of industry and civilization in mountain glens, and on hills and plains where there was before but a scant population, and showing in all directions substantial progress. There is nothing like these new industries for the Southern people. They preach a new gospel of work which means independence and prosperity.

BARON LIEBIG ON FLOUR AND FERMENTATION.

The following remarks are by Baron Liebig: "Many chemists are of the opinion that flour, by the fermentation in the dough, loses somewhat of its nutritive constituents, from a decomposition of the gluten; and it

has been proposed to render the dough porous without fermentation by means of substances which, when brought into contact, yield carbonic acid. But on a closer investigation of this process, this view appears to have little foundation. When flour is made into dough with water, and is allowed to stand at a gentle warmth, a change takes place in the gluten of the dough similar to that which occurs after the steeping of barley, in the commencement of germination in the seeds, in the preparation of malt: and in consequence of this change, the starch (the greater part of it in malting, in dough only a small percentage) is converted into sugar. A small portion of the gluten passes into the soluble state, in which it acquires the properties of albumen, but by this change it loses nothing whatever of its digestibility or of its nutritive value. We cannot bring flour and water together without the formation of sugar from the starch, and it is this sugar and not the gluten, of which a part enters into fermentation, that is resolved into alcohol and carbonic acid. We know that malt is not inferior in nutritive power to barley from which it is derived, although the gluten contained in it has undergone a much more profound alteration than that of flour in the dough; and experience has taught us, that in distilleries where spirits are made from potatoes, the plastic constituents of the potatoes and of the malt which is added, after having gone through the entire course of the processes of the formation and the fermentation of the sugar, have lost little or nothing of their nutritive value. It is certain, therefore, that in the making of bread there is no loss of gluten. Only a small part of the starch of the flour is consumed in the production of sugar, and the fermentation process is not only the simplest and best, but also the cheapest of all the methods which have been recommended for rendering bread porous."

GROW MORE OATS.

The use of oatmeal as food for human beings is rapidly extending in this country. Fifty years ago there was not a bushel of oats used for any other purpose than horse feed in the United States. Now there are mills owned and run by millionaires in this and other states which are exclusively employed in making oatmeal for diet for men and women.

It is well known that this commodity has been a favorite kind of food in Scotland and other parts of Europe over a hundred years. Bobby Burns in his poems more than once celebrates the virtues of "porritch" in the rearing of branny men and healthful women. And yet so fixed are national prejudices that the use of a new article of diet, however desirable and meritorious, is slower than it ought to be; so that to find a family that has oatmeal on the table once every day is the exception rather than the rule in this country; and as simple as the preparation of a good dish of the material is, one rarely meets a cook or a housekeeper who knows how to make it well.

During the Irish famine, some thirty years ago, we recollect that a cargo of corn, which was shipped from Marietta, in Ohio, to Cork, and offered as a bounty to the poor people to prevent starvation, was rejected with scorn at first as food only fit for swine.

"Oats is only fit for horse feed," say our scornful American youth; "for our part we are satisfied with beefsteak, boiled ham, eggs, hot cakes and coffee." And thus they gorge themselves with viands and drinks which induce dyspepsia and other diseases in proportion as they are taken hastily and in excess.

The writer has partaken of many a good, satisfactory and nourishing breakfast on oatmeal and cream, and can warmly commend their use as producing branny men and beautiful, healthy women. Physiologists and economists attribute to the Scotch much of their energetic and effective character to the hearty porridge on which their youth is mainly reared, and we are inclined to believe there is much in the claim.—*Cincinnati Commercial Gazette*.

TAKING THE PREMIUM OFF STRIKES.

It is Mr. Powderly's belief that there will be fewer strikes and labor disturbances the coming year than occurred during the last year. He believes that the abolition of the assistance fund, which was accomplished at the Minneapolis meeting of the Knights of Labor, "will tend to take the premium off strikes." He is undoubtedly right in this view. It was, in fact, nothing else than putting a premium on strikes to assess the working members of the order for the benefit of the strikers. With a large fund to draw upon when their wages should stop, there was a standing inducement for men to go on a strike even when they had no grievance worth striking about. They were more ready to walking delegates and disturbers than they would have been had they realized that they must stand or fall by themselves, and that the loss of their wages would not be in part made up to the idlers by a tribute levied upon the earnings of those at work. It was the "assistance fund" that started or maintained many a strike, and the Knights have done wisely in cutting off this incitement to industrial disturbance. Industrious and temperate workingmen grew very restive upon being frequently called on to support a lot of strikers in idleness who, for all they could see, had nothing to strike for and might as well be at work as themselves. This feeling was expressed in the action of the General Assembly at Minneapolis. With the "assistance fund" cut off, there is a good reason to believe that there will be fewer strikes and more arbitration. Workmen who understand that when wages stop there will be nothing to take their place will think several times before throwing down their tools at the order of some paid agitator whose business it is to traverse the country and stir up trouble.—*N. Y. Commercial Bulletin*.

THE MEXICAN GRAIN TRADE AND THE RAILROADS.—The latest received *Mexican Financier* has the following: "The grain dealers are beginning to open fire on the National Railway and also on the Vera Cruz Road in the matter of corn (maize) transportation. The National and Vera Cruz railways have been, and still are, making special rates on corn to Yucatan, which is a public benefit, inasmuch as the people of the Peninsula are now able to buy Mexican instead of American corn. Undoubtedly some speculators have found their plans interfered with, and hence the outcry which will be received by the general public with philosophical serenity."

GRAIN ELEVATOR FIRES.

Two hundred and sixty-eight fires in grain elevators and storehouses in the United States reported in *The Chronicle* fire tables during three years ending with 1886 show as to losses:

An aggregate property loss of.....	\$3,994,318
An average property loss of.....	14,901
An aggregate insurance loss of.....	2,493,366
An average insurance loss of.....	9,304

AS TO CAUSES OF FIRES:

Number of fires from unknown and not reported causes.....	128
Number of fires due to exposure.....	66
Number of fires, reported causes, aside from exposure.....	74

Reported causes, aside from exposure, distributed as follows:

Incendiary.....	31	Engines and boilers.....	3
Sparks (locomotive).....	13	Tramps.....	2
Friction in machinery.....	10	Spontaneous combust'n	1
Lightning.....	7	Stove.....	1
Defective flues.....	3	Accident (not other-wise reported).....	1
Sparks.....	3		

The apparent chief cause of fires in grain elevators and storehouses, as ascertained from the reported causes, aside from exposure, is incendiaryism. Percentage of incendiary fires, reported causes, aside from exposure, 41.9.

A twelve years' record of the number of grain elevator and storehouse fires (money losses and causes not given in *The Chronicle* fire tables prior to 1884) shows an average burning of 44 annually.—*The Chronicle*.

FEEDING GRAIN TO CATTLE.

Hay being scarce, there will be various devices resorted to, in order to carry cattle through the winter. Of course those who have grain will feed it, as the prospects of the price of corn will make it cheaper food than hay. In that case, it is well to consider the best way to feed hay and grain. It is well known that in feeding corn either in the ear or shelled, a large portion passes through the animals without being digested. And if hogs do not follow them, a large portion of the corn is lost. And when corn meal is fed it is ascertained that more of it passes through undigested than of whole corn. It is claimed that meal, taken by itself, passes immediately to the fourth stomach, where it is beyond thorough digestion. Prof. Arnold says he sold four fat steers to the butcher. He followed them to the slaughter house, and there just before they were killed, he fed them a peck of corn meal each. So soon as they could be slaughtered, and their stomachs reached, he found all the meal had already reached the fourth stomach. Not a particle could be found in the first, second or third stomach. Food should remain in the first stomach or the rumen long enough for the saliva, or pepsin, from the salivary glands to saturate it and be well started in the process of digestion. And then it will progress as it passes through the other stomachs to the paunch. That in this process of passing through the various stomachs the meal should be mixed with coarser food, such as hay, straw or corn fodder. And the more intimately it is mixed with and attached to the forage the better. Hence practical feeders claim that it pays to cut all hay, straw or fodder fine, wet it and sprinkle the meal upon it in a way that it shall adhere to and be masticated with it. In this way cattle never

have the scours caused by corn meal, nor does scarcely any of it pass through the animal undigested.—*Iowa State Register*.

STEAM FLOUR MILLS IN BRAZIL.

REPORT OF U. S. CONSUL TRAIL.

The proposed establishment of several steam flour mills in Rio having caused some discussion in United States newspapers in regard to their probable effect on the importation of American flour, I have collected a few articles, which are herewith inclosed,* that are of interest both for the information they convey and in that they look upon the enterprise from different points of view.

As the editor of the *Rio News*, of February 5, says:

"Regarding the production of wheat, it may be considered as an indisputable fact that Brazil will never (or at all events, not for many years to come) figure in the world's market as a wheat producer. Certain localities in the south and in elevated regions may produce a small quantity, but of inferior quality, for flour-making purposes."

The duty on flour per barrel being from 65 to 75 cents, varying with the rate of exchange, and wheat being admitted free, it is claimed by the promoters of the undertaking that by the use of the best machinery and careful management a large profit can be realized here in flour milling with imported wheat, until such time as a sufficient quantity of the cereal is grown here to satisfy the home demand.

The companies have not obtained, nor so far as I can learn, have they as yet asked for any concessions from the Government. It is proposed simply to take advantage of existing tariff regulations and to interest Brazilians to an extent that will insure against the placing of wheat on the tariff list. It naturally follows that if the experiment does not prove successful from the start, a strong pressure will be brought to bear on the Government to have the duty on foreign flour increased. Should these undertakings succeed and so drive out of Brazil, American flours, our Government will doubtless render to its millers such assistance as the case calls for. In view of our large and increasing purchases of Brazil's staples, it would seem to be only polite on the part of the Empire to show some slight mark of favor to an American industry threatened with destruction.

Of course these mills, if ever erected, will be an experiment whose success is not by any means assured. I am informed from an intelligent source that the whole affair is simply a gigantic speculation, out of which certain parties expect to reap a rich harvest. But for this I cannot vouch.

FLOUR IN COLOMBIA, SOUTH AMERICA.

REPORT OF U. S. CONSUL VIFQUAIN.

Forty dollars and more per barrel is the price of flour here along the coast, a great portion of which is custom duties. As a result, the imports of flour from the United States are not what they might be, the laboring classes being unable to use such an expensive article.

I estimate, from figures collected, that where 1 barrel of flour for consumption, say 5 bushels of wheat, is imported now, 8 barrels, or 40 bushels of wheat in the grain,

*The articles are extracts from a number of Rio newspapers.

would be imported and consumed if it were manufactured here and sold at "reasonable" rates, i. e., from \$5 to \$7 per 100 pounds weight. That is to say, if 100,000 barrels are imported from the States for the Colombian market, outside of the Isthmus of Panama, the equivalent of 500,000 bushels of wheat, eight times this amount in wheat, or 4,000,000 bushels of wheat, would be imported.

To be sure, this is not much in proportion to what our crop generally is in the States; but then it would always be that much, with promise of a large increase in the near future; it might become an immense factor in establishing on this continent a substitute for the market for wheat that we have lost in Europe, and facilitate perhaps not a little in enabling the fixing of the standard value of silver as a staple in the United States instead of Great Britain, for the South American States are essentially silver communities. I might also call your attention to the fact that the wheat for this coast can come all the way from St. Paul, Minn., or Omaha, Nebr., by means of water transportation.

I am lead to believe that if parties in the United States were to establish flouring mills at this place, or at Cartagena, all the machinery for these mills, and all the material necessary for their construction, would be admitted free of duty; nay more; I make bold to say that every bushel of wheat needed for these mills would be admitted free of duty; and this is the one great point I wish to make in this report. Unable to create such a market for our flour as we ought to have, we should strive to create one for the raw product.

The consummation of this by American millers would be an entering-wedge, which would be of telling effect between the trade of the United States and Colombia for the future. Concessions by the Government of Colombia can be secured for all this, which will, so to speak, give a monopoly to the United States for the wheat to be used here.

VICTOR VIFQUAIN, Consul.
United States Consulate, Baranquilla, July 6, 1887.

MISS YATES' RECIPE FOR WHEAT-MEAL BREAD.—*Ingredients.*—Fourteen pounds of wheat-meal, three ounces of French or German yeast (larger quantities of meal require a smaller proportion of yeast), three quarts of water (some meals are improved by using rather more water), one and a quarter ounces of salt (this small quantity of salt, half the amount used for white bread, is a great improvement to wheat-meal bread).

Method.—Dissolve the yeast in cold water (about 66 deg. Fah.). Wheat-meal ferments so rapidly, that, if the water used reaches a temperature of 70 deg. Fah., the bread, especially in hot weather, is very liable to become sour. Mix the meal and salt, then stir in all the yeast and water with a wooden spoon, making a slack dough or batter. Do not knead the dough. Place it at once in tins and let it rise for an hour and a half in a moderately-warm place, about 100 deg. Fah. Bake in a moderately-hot oven with plenty of steam for about an hour and a half. The oven should be made cooler the last half hour. If this cannot be done, place a flat tin at the top of the loaves to keep in the steam. Take care that the oven is not too hot. The crust of wheat-meal bread becomes hard if baked in the hot ovens required for white bread. Avoid using white sponge. Avoid using chemical baking powders, as the product left in the food are almost always more or less objectionable.

UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, NO. 124 GRAND AVENUE, MILWAUKEE.

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MILWAUKEE & CHICAGO, NOV., 1887.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MILWAUKEE millers express themselves as satisfied with the business of late. The mills are running in full time and are making a fair profit.

WE respectfully call the attention of all parties receiving this paper to the liberal offer made subscribers, on another page. In substance it is as follows: For Two DOLLARS we will send post-paid to any address in the United States or Canada THE UNITED STATES MILLER (monthly) and The N. Y. World (weekly), for one year and a "Pocket Atlas of The World," containing 138 maps and valuable condensed descriptive matter, and either one of the following books (see description in advertisement on page 11). "History of The United States"; "History of England"; or "Everybody's Guide." These are handsome books, elegantly bound and very suitable for Holiday Presents. Can give but one book with each subscriber.

WE call the attention of Millers and Flour Brokers to the Private Telegram Cipher advertised on page 11. It is pronounced to be the simplest and most accurate work of the kind published. It is the result of years of labor and practical experience in its use.

CAWKER'S AMERICAN FLOUR MILL AND GRAIN ELEVATOR DIRECTORY FOR 1888 is now in course of preparation and will be ready for delivery in February, 1888. The publisher (E. Harrison Cawker, No. 124 Grand avenue, Milwaukee, Wis.) desires all flour mill owners to send him their correct name and postoffice address, with the capacity in barrels of flour per day of 24 hours and to state whether they use steam or water power or both, or rolls or millstones or both. Elevator owners are desired to send elevator capacity and number of elevators owned by the firm. Full replies will be of benefit to the entire trade.

MILWAUKEE ITEMS.

JOHN DUGAN, for over twenty-five years an employee in the St. Paul Company's Elevator B, was killed Nov. 7. While walking along on one of the upper floors, he accidentally

stepped into a grain hopper, not noticing in the darkness that a trap door had been left open. The iron buckets at the bottom of the hopper were in motion at the time, and nearly amputated the man's legs. His body was also dreadfully squeezed. The machinery was stopped as soon as the alarm was given, but his injuries were so great that he died in an hour from the time of the accident. He was 72 years of age.

Mr. Eckel, of Blue Rapids, Ks., made us a call. He has sold out in Kansas, and is looking for a location.

FOREIGN ITEMS.

THE first sod of the Manchester Ship Canal was turned Nov. 11.

BRAN LOAVES.—A Berlin company, called the Berlin Bread Making Company, has introduced a new article in the form of loaves made of bran; local vegetarians prefer this to wheaten bread, we are told; certainly there is no accounting for tastes.

THE duty on machinery imported into Austria has been reduced fifty per cent.

IT is a matter of considerable difficulty to obtain a patent in Germany. All applications are referred to a technical committee for examination and approval. This committee has a right if they desire to do so to reject any application without giving any reason.

SEVERAL Austrian millers are stated to have lately joined in a petition to the Government asking that means may be taken to put down the gambling in grain, of which the Vienna Corn Exchange is said to be the theatre. The petition sets forth that this gambling is not only injurious to public morality, but that it inflicts direct injury on the milling trade by subjecting their staple raw material to sudden and artificial fluctuations in value.

AUSTRIAN MILL INSPECTORS.—It is clear that in Austria factory inspectors do their work in no perfunctory manner. Many millers in that land are still smarting under the last inspection, and here are a few of the injunctions which one of the inspectors lately laid upon a miller. That individual was strictly charged to repair all faulty stairs, to provide the best covers for all his manholes, to protect his water-wheel and its approaches with stout wooden walls, to provide all shafts with automatic lubricators, to remove or cover up all set screws, to protect by a covering of some sort all shafting and belts within a foot and a half of the ground, to provide all belt-driven machines with slack and fixed pulleys, to instruct his staff to warn all entering the mill of possible dangers, and to enjoin on all in authority in the mill to call attention to every careless act, and on a repetition of the offense to report the offender for punishment, etc., etc., to which a Viennese milling journal remarks: "All very well and desirable, and if the mills of the country had to be built over again we might bear these precepts in mind, but having to do with many ancient structures we have to make the best of them."

Moreover, it is urged, this is not the time to call on the millers to make costly changes, however theoretically desirable.—*The Miller, London.*

ITEMS FROM OVER THE SEA.

A THREE hundred barrel all roller steam mill is being erected in Sandhurst, New South

Wales, for Messrs. Webb & Co., by an English firm.

THE Argentine Republic is subsidizing almost every kind of scheme that will in any way develop the country. According to a late census the population of Buenos Ayres is now 460,000, and at the present rate of increase will be 800,000 in ten years.

GREAT destitution and suffering are reported from Cilicia, province of Adana, Asia Minor, on account of the failure of crops and consequent scarcity of grain.

THE quantity of wheat required in New South Wales for the present year is estimated at 6,722,086 bushels. These figures show a deficiency over the harvest returns of 766,927 bushels. Last year the short crop made the imports much larger than usual, although the colony for many years has not been able to produce a sufficient quantity of wheat and other breadstuffs for home consumption. The imports of wheat into the colony during 1886 were 1,105,079 bushels, valued at \$1,000,435, against 545,423 bushels, valued at \$477,725, for the year 1885. Of the imports for 1886, New Zealand furnished the largest proportion. The quantity imported from that colony was 437,486 bushels. The United States came next, with 359,005 bushels. Victoria furnished 295,721 bushels, and the remainder was from India, South Australia and Queensland.

FLOUR MILL DIRECTORY FOR 1886-87.

All persons desiring to reach the milling trade should invest at once in a copy of Cawker's American Flour Mill Directory for 1886-7, issued Feb. 1, 1886. It is carefully compiled; contains 18,289 addresses in the United States and Canada; shows in thousands of instances the capacity, power and system of milling (i. e. whether the stone or roller or combined system is used). It also contains a list of millwrights and American and European flour brokers. The book is sold at \$10 per copy and can be obtained by addressing the United States Miller, Milwaukee, Wis. This Directory is published once in two years.

THE ice palace and carnival celebration at St. Paul will open on Wednesday, January 25, 1888, and continue until Saturday of the week following. The plans for the ice palace imply a building 190 feet in width and 195 feet long, with a tower 120 feet high and 50 feet in diameter, in the center. At one corner is the maze, 80 feet in diameter, with five circular walls before its center is reached. The four corner towers will be 80 feet in height, and the towers on the wall will be from 40 to 60 feet high. The outer wall will be of an average height of twenty-eight feet.

A DISPATCH from Jackson, Mich., dated Nov. 25, says, that George T. Smith, president of the purifier company of that city, stated this morning that the company had been offered ten acres of land worth \$20,000 and a cash bonus of \$4,000 to remove its works to St. Paul. He said, the company would probably accept and be in St. Paul inside the coming year. The purifier plant is worth \$1,000,000 and employs nearly 500 men. He said they wanted increased facilities.

NEW YORK FLOUR INSPECTION.

LOWERING THE STANDARD AND ITS EFFECTS ON NEW YORK MARKETS—HOW TO MAKE A LARGER MARKET OF NEW YORK.

Since the standards of inspection of flour for the new crop have been made there has been a great deal of complaint in the trade regarding the changes which have all been in the direction of lowering the grade to the detriment of New York as an export market, so it is stated. In order to ascertain what foundation there is for these complaints the opinion of one of the largest export buyers of flour in this market was asked in regard thereto. "Plenty of foundation," was the answer. And when asked to explain, he made the following statement:

"The trouble is two-fold; there has been an idea on the part of some receivers of flour, who seem to have a full representation on the Flour Committee this year, that by lowering the standards of inspection in New York more flour would be attracted to this point, and thus make a larger market for flour here and bring back the export trade, the bulk of which has gone west direct to the millers in the past few years. The other trouble has arisen from making inspectors of a lot of bung drivers, said he, who know no more about the close distinctions in flour, which require a trained expert to make, than a blacksmith does about the jewelers' art. This is the greater evil of the two, for these inspectors can't tell whether they are working up to the standard given them or not, and as the tendency is to work the grade down instead of up in the Flour Committee, of course these inspectors when in doubt err on the safe side. Now the effect of all these changes can be easily seen, and instead of accomplishing the laudable object intended of bringing more trade to New York, it is actually being driven away, for the very apparent reason. As stated, the Committee yielded to the demand for these changes, in order to get back the export trade that has been done so largely with the mills in the west direct. But it did not occur to them that the means adopted would more surely drive export buyers away from this market than they would attract consignments from the western mills. Without an export demand here for the flour consigned, because of an easier inspection, the western millers would cease shipments to this market; and as they would find the exporter more ready to trade direct at the mills on their (the millers') terms than before, the little export trade left to New York would be driven away, and only forced sales at prices below the mills would tempt exporters to buy here, except in cases of scarcity, or when quicker shipment was required than could be had from the west, when our city mills would get this business, and not the receiver of western flour, in whose interest these changes were supposed to have been made. This result has already been seen in the recent unusually heavy purchases we have been compelled to make of city mills flour, of which the largest sales on record were recently made. These city millers are therefore the only ones benefitted by these changes in the standards of inspection.

"The only way to make a larger flour market of New York is to attract buyers here first and the sellers will follow. The Flour Committee have got their cart before their horse and are trying to go ahead backwards, and with the result already seen. Now I will give

them one or two points gratis on the means necessary to get back the flour export trade that has gone west, for which good object we exporters will co-operate cheerfully, as it is as much to our interest as that of receivers of flour to have the business done here through us and under our personal supervision instead of direct by the importers in Europe with the millers in the west; for this direct western business is mostly done over our heads and hurts us who lose the commission for buying as much as it does the receivers who lose the commission for selling. Let the Flour Committee, backed by the influence of the Produce Exchange, demand of the Inter-State Commerce Commission that the Inter-State law shall be enforced by the Trunk Line railroads, which are not only discriminating against the New York market, and against this port as a shipping point by open or secret violations of this law as badly as they did before it went into force, but they are building up a few large millers in the west at the expense of all the smaller ones, who cannot make contracts for large and continued shipments of flour at cut rates as the big western millers did recently, when the Trunk Lines opened war on each other apparently with a general reduction of rates just long enough to let these big millers in on the 'ground floor' for all the flour they could ship till into January next.

"After this was done with the flour millers as it was with the big western pork and beef packers, the 'war was stopped,' rates 'restored' and the millers who were left out in the cold of course have had to pay 'tariff rates' since then. But, in spite of all the Trunk Lines officials' denials of cut rates and discriminations and contracts 'made since' the restoration of rates, I happen to know that contracts made before that restoration at the cut rates of the early fall, are still in force and were made to run into January next for all that those lucky millers can ship, by which they are able to undersell the New York market 20c. per bbl. or 10c. per 100 lbs., and have been doing so for 2 months, during which I have been buying all the flour they would sell me, for these big mills are sold ahead on the other side for two to three months, or until these contracts, at the cut rates on which they are shipping flour for me and other exporters who buy of them instead of here. Let the Flour Committee dare the railroads to retaliate on them personally by withdrawing all favors and press their demand for a correction of this abuse by the Trunk Lines and see to it that these amateur inspectors of flour are either educated to the business or replaced by experts, and then restore their own standards of inspection, and they will have the hearty co-operation of shippers, instead of their opposition, as now, for changes that will bring both buyers and sellers of flour to this market and hold them here.—*N. Y. Commercial Bulletin.*

A WOMAN farmer in California has cause to be proud of her record in raising wheat this season. She has a farm of 3,000 acres; from this she harvested about 2,000 tons of wheat, which she sold at \$31 a ton, clearing about \$60,000. She owns a combined harvester which will cut, thresh and sack 30 acres a day. When her crop was ready for the sickle she started her machine, hired four more and the five went marching around her golden fields—20 men and 120 horses, cutting thresh-

ing and sacking 150 acres of wheat each day. It kept five of the men busy sewing up the sacks of grain as they came from the separator; five drove each a 24-horse team, five tended each a sickle, and the other five each to a separator. In a minute the standing grain is in the sack ready for transportation. The owner, whose name is Crow, is a widow and attends to the business herself.

THE driven well patent has been declared invalid by the Supreme Court of the United States, in the case of Andrews, Green and others against George Hovey, appealed from the U. S. Circuit Court, Southern district of Iowa. Heretofore the decisions have nearly all been in favor of the patentees on the issues presented, but this defendant proved to the satisfaction of the court that the invention was used in public at Cortland, N. Y., by others than the patentee for more than two years before his application for a patent, which fact is fatal to the validity of the patent. This decision will rejoice the hearts of those Western farmers who have steadily resisted the payment of a royalty for the use of driven wells, but it comes too late for those who were afraid of a lawsuit.

IN respect of the horse-power required for milling, *Power and Transmission* says:

It ought to take about 40 horse-power to make 100 barrels of flour per twenty-four hours. This, if steam is used, will require the evaporation of from 15 lb. to 40 lb. of water per hour per horse-power; or from 1,000 lb. to 1,600 lb. of water per hour; say 21,000 lb. to 39,400 lb. of water for the 100 barrels of flour. This will be from 240 lb. to 384 lb. of water per barrel of flour. The boiler will require from 1-5th lb. to 1-10th lb. of coal per lb. of water; so that if the water required is only 240 lb. per barrel of flour, the coal required may range from 24 lb. up to 48 lb. per barrel of flour. If 384 lb. of water are required per barrel of flour, then the coal required may run from 38.4 lb. per barrel, up to 76.8 lb. So you have the extreme of 24 lb. and 76.8 lb. of coal, the maximum being about three times the minimum.

IT has been computed that the carrying capacity of a freight car of ten tons is: Wheat, 840 bushels; corn, 400 bushels; potatoes, 480 bushels; apples, 370 bushels; oats, 680 bushels; lumber, 6,000 feet; butter, 20,000 pounds; flour, 90 barrels; whisky, 60 barrels; wood, 6 cords; cattle, 18 to 20 head; hogs, 50 to 60 head, and sheep, 80 to 100 head.

A CHRISTMAS EPISODE.—All the guests but myself were seated around the table, and I had just left it. While passing through the passage where hung the coats and hats, I felt one of the pockets of a coat brushing rather heavily against my elbow, and I took from that pocket a bottle of champagne that I recognized as being brought up to the table an hour before. A pretty mean thing to do—accepting a man's hospitality and then stealing his wine. But what was my astonishment at hearing as the guests were departing, old Shabbiman say, as he discovered his coat pocket to be minus the bottle. "What! that bottle's gone! I never see such a lot of thieves as there is 'ere in my life!"

PUBLICATIONS RECEIVED.

THE AMERICAN MAGAZINE for December will be a Christmas number. Its leading article, by Wm. H. Ingersoll, will discuss the peculiarities of the accepted likeness of Christ, and recount the legend of its origin. This likeness is traceable in the sacred art of all Christian nations from the beginning of our era. Mr. Ingersoll will more especially describe the endeavors of distinguished American painters and sculptors to represent this ideal. This article will be abundantly illustrated.

SCRIBNER'S MAGAZINE for December is a Christmas number and full of good things.

H. C. Bunner's story, "The Zadoc Pine Labor Union," is filled with humor and genial satire exposing the absurdity of the foreign ideas about labor and capital which have found a foothold among workingmen in this country. E. H. Blashfield, the well-known painter, and his wife, who have been frequent residents and close students of Florence, have contributed a delightful paper associating some of the most picturesque features of that city with the scenes of George Eliot's famous romance, "Romola." Mr. Blashfield has made sixteen beautiful drawings to illustrate it. Bret Harte's story is entitled "A Drift from Redwood Camp." The scene of it is on the Pacific coast—the region of his early successes. The hero of it "Skeesicks," is an interesting type of the "no-account man." Among the skillful engravers whose work will appear in the Christmas Scribner's are such well-known names as Robert Hosking, Frank French, E. Heinemann, Elbridge Kingsley and Fred. Juengling. The cover of the Christmas number of Scribner's Magazine will be something entirely unique in the field of magazine publication.

THE INTER- NATIONAL TELEGRAPHIC CODE for the use of flour merchants and their agents, compiled by W. H. Dunwoody, is published and sold exclusively by The Northwestern Miller Minneapolis, Minn. This Code is used quite extensively by the trade, and the revised edition just out will no doubt meet with an excellent demand.

WISCONSIN FARMERS' INSTITUTES for 1887, edited by W. H. Morrison, Superintendent Board of Regents of University of Wisconsin. This work contains a number of essays valuable to farmers. Thirty-one thousand copies have been printed for free distribution among the farmers of Wisconsin. It is to be hoped that the Farmers' Institute will be of great benefit to Wisconsin farming interests.

THE AMERICAN NEWSPAPER ANNUAL for 1888, by N. W. Ayer & Son, Philadelphia, is a volume of 1170 pages, containing a full list of Newspapers and Periodicals of all descriptions in the United States and Canada, with all essential particulars, and conveniently arranged. It enumerates also the various Press Associations, and comprises descriptions of States, Territories and Canadian Provinces, and of the countries as to location area, navigable streams, surface, soil, productions and manufactures. It gives the population of every State, County and County-seat, and of all the large cities and towns; and the number of votes polled in each State by the various parties. It shows in alphabetical order the cities, towns and villages having a population of 5,000 and upwards; the number of counties in each State, and how many newspapers are published in each. There is a large amount of miscellaneous information, presented in the best form, and for business and other purposes the volume is worth three dollars, the price of it.

R. G. DUN & CO.'s Mercantile Agency dated N. Y., Nov. 19, says: More than a third of all the wheat which will leave the farms throughout the country during the entire crop year, was sold in this one city during the past six days. Reported sales reached 107,300,000 bushels wheat, 22,257,000 corn, 8,273,000 barrels oil, 1,046,400 bales cotton and 468,000 bags coffee. Wheat advanced 3½ cents, corn 4½, oats 1½, oil 1½ and coffee half a cent, while cotton declined a sixteenth; hogs, pork and pork products were excited, hogs rising 40 cents per 100 pounds and lard 20 cents; tin jumped 3½ cents again, and copper nearly one cent. Apprehended deficiency of supply

is the excuse for the excited advance in some products, but the bottom fact is, that more currency is in circulation than ever before, and Treasury deposits with banks feed the speculative fever, while removing the fear of monetary pressure at the chief centres of trade. Meanwhile, money remains light at many interior points, and complaints of slow collections do not abate. * * *

The great speculation in wheat goes on, in spite of a decline of 3,200,000 bushels in October exports, and 3,300,000 bushels in September. "Never mind the exports; we are making money," the traders say; but the quantity remaining on hand November 1st, after allowance for a full year's consumption, was 109,900,000 bushels, whereas the exports for the remaining months of the last crop year were 100,768,941 bushels. Corn is excited because of the Bureau reduction of 50,000,000 bushels in its estimate; at the same time pork products and cattle rise. Yesterday's markets showed a sharp reaction in grain, but whether the speculation has culminated no one can say. Cotton has reacted but little from the great advance caused by the Bureau report, but receipts continue large beyond precedent; if the Bureau estimate of 6,300,000 bales is correct, the quantity which has come forward already, about 8,254,000 bales, is not less than 51.6 per cent of the year's yield. It is strange that some are in doubt about it. * * *

Coal is in great demand, the Reading having given notice of another advance for the 21st.

Exports for two weeks from New York fall 15.1 per cent. below last year, but imports here also fall short by 85 per cent. The Treasury continues to swell its deposits with banks, adding \$2,450,000 since last week, but has taken in \$2,400,000 gold, while putting out \$1,600,000 silver notes. Money is in fair supply at the chief centres of trade, but the movement westward has not even yet entirely ceased.

A SUBSTITUTE FOR HYDRAULIC CEMENT.—According to a statement of Mr. Miles, a well-known engineer, it is a fact peculiar to Spanish countries, that ordinary brick dust, made from hard-burned, finely-pulverized bricks, and mixed with common lime and sand, is universally and successfully employed as a substitute for hydraulic cement. Mr. Miles says that during an engineering experience of some six years in Cuba, his opportunities were ample for testing its merits, and he found it in all respects superior to the best Rosendale hydraulic cement for culverts, drains, tanks or cisterns, or even for roofs. In an experiment to test the strength of this product, it was found that a block of it, 4" in thickness, without sand, and after immersion in water four months, bore without crushing, crumbling or splitting, a pressure of fifteen pounds per square inch. It is thought that, by the addition of pulverizing mills to brickyards, to utilize the waste and broken bricks, a profitable manufacture might be carried on.

THE OLDEST FORM OF BREAD.—Biscuits are the oldest form of bread. At what period of man's history the lightening of dough by fermentation was first adopted no one, of course, knows. It is, however, certain, that cakes made of nothing but meal and water

and then baked are very much older. Fragments of unfermented cakes were discovered in the Swiss lake dwellings, which belong to the neolithic age—an age dating back far beyond the received age of the world. This is the earliest instance of biscuits as yet discovered, for biscuits are merely unfermented bread. Although this rude form of bread was early discarded for the fermented variety, yet in this, as in many others, it was found convenient to return to the discarded and apparently valueless process. Thin, unfermented cakes were found to possess merits for special purposes. They would keep good for a great length of time, and they were convenient to carry, and thus afforded wholesome and nutritious food in a portable and convenient form. The simplicity with which they could be made and baked was also a point in their favor. It is not a little odd that the word "biscuit" embodies the process by which biscuits were made from time immemorial to within the last century, if not, indeed, later. *Bis*, twice, and *coccus*, cooked, shows that they were twice baked; and although the double process has now been discarded, yet the name is retained.

THE New York Mail and Express of Nov. 1, 1887 gives the following as the present elevator capacity and receiving or first storage charges on grain at leading points in this country:

	St range capacity.	Original charges receiving per bushel.
New York	28,000,000	4c first 10 days
St. Louis	12,150,000	1c first 10 days
Buffalo	13,980,000	3c first 5 days
Baltimore	5,050,000	1½c first 10 days
Philadelphia	4,100,000	3c first 10 days
Toledo	7,257,000	3c first 10 days
Chicago	27,025,000	3c first 10 days
Milwaukee	5,630,000	3c first 15 days
Duluth	10,300,000	1½c first 20 days
Minneapolis	13,000,000	1½c first 20 days
Total	135,582,000	

A RECENT official report on the development of trade in India states that during the year ended in March last upwards of 1,000 miles of new railway had been completed and opened for traffic, and there were at that time 3,200 miles under construction or already sanctioned. Since 1873 railways in India have extended from 5,880 miles to 13,390 miles, a development which is calculated to have laid more than 100,000 square miles of Indian soil under contribution to the export trade. This is unquestionably an important factor in the development of the country, and, in one sense, in the future relationship of India to western agriculture. It may be added that India's wheat exports increased somewhat last year as compared with any preceding years. Owing perhaps to temporary depression in European markets, and competition by other quarters of the globe, neither coffee nor cotton acreage was extended. But the tea industry goes on increasing, and wheat cultivation has grown until now the normal area under wheat is put down at nearly 27,000,000 acres, and the yearly product at more than 7,000,000 tons. "There is little doubt," says the Edinburgh Scotsman, "that, in the course of a few years, India will have become an important rival as a wheat producer of Southern Russia, the United States and Manitoba."—*Bradstreet's*.

REFORM IN MILL CONSTRUCTION.

Anton Hamma of Trieste, Austria, says, under the above head:

I have seen in various countries mills which, owing to the superfluous amount of machinery they held, better deserved to come under the head of machinery exhibits. A mill owner near Budapest invited me to visit his mill, a comparatively modern establishment, erected by a well known builder. Employing 40-h. p., with a capacity of under 90 bris. per twenty-four hours, there were 27 men at work, and yet the product did not compare with other flour for excellence. No wonder! The space was so filled with machinery, good machinery in itself, but present in such superfluous amount, that no rational arrangement of it could be secured. For the production named, fourteen middling purifiers were at work, emptying the products into tubs. The results desired were not attained, and it was reasoned that the head miller must be at fault, since neither the theory or the builder could be in error. So the miller was discharged and a series of others tried, till no one could be found to take charge of the mill, still without improvement in results. Finally a head miller appeared who roundly declared, that good work could not be done with the plant as it was, and demanded the advice of an unprejudiced expert. I was called in after another engineer who, after long examination, reflection and computation came to the conclusion that the purifying system needed additions, and recommended the purchase of certain machines for the purpose. It is easy to imagine the astonished expression of the long suffering owner, when I assured him that his mill was suffering from too much machinery, and too little continuity and harmony of operation. A thorough reconstruction was made after he had been convinced, the number of purifiers being reduced to six in the process. At present the mill works satisfactory, and the head miller is not changed.

OREGON TRADE WITH SAN FRANCISCO. There has been quite an increase in wheat and flour from Oregon for the year, in wheat especially, which is about double what the whole of the receipts of 1888 were. By the close of the year we will have received nearly a million and a half cents. Receipts of salmon have fallen off heavily, showing that Oregon salmon for the future will only in small part seek this market. Receipts of apples have fallen off heavily too. In the matter of hides we will do a little better than last year. Our receipts of wool have increased nearly five thousand bales. Shipments of flaxseed hitherto have fallen off, receipts of oats have also fallen off, as also have those of potatoes and bran. The falling off shown here is only temporary. The value of the imports from Oregon for ten months of the year is about four million dollars.—*San Francisco Journal of Commerce*.

NORTHWESTERN WHEAT MOVEMENT.—Some of the Northwestern lines or elevator people are beginning to regard with suspicion the possibility of large farmers' deliveries of wheat for the remainder of the crop year. At some points the wheat is pretty well out of

farmers' hands, and the elevators nearly empty. It has been the intention of the elevator men to stop shipping wheat out of their country houses whenever in their judgment there would be no more left, in the hands of farmers in the vicinity, than to fill the houses. It is their policy to hold wheat in country elevators to get out of them carrying charges. There are points that still have a surplus, and it is from such that the movement now comes. When these points are shipped out, so that the houses in the country will hold the remainder, there will be a sudden ending of the large Northwest movement. That time is not so very far away as many imagine.—*Minneapolis Market Record*.

NONSENSE.

Omaha World: Omaha Customer: "I want a box or herring."

Honest Grocer—"Yes, sir; dried."

"No; packed in cotton seed oil."

"Yes sir. John, bring me a can of those imported sardines."

DINGLEY—Oh, I'm just like I used to be. By the way, Peckham, how's your wife? You used to say you had the boss girl when you were single. Peckham (sadly)—She's still boss.

New York Sun: Gentleman (in clothing store)—I find that I have got to go to Montreal to-night, and I want a suit of clothes.

Clerk—Yes, sir. You want a cut-a-way coat, I s'pose.

ADJOURNED THE BEAR HUNT.—"Any bear about this neighborhood?" he inquired as he leaned an \$800 breech-loader carelessly in the hollow of his arm.

"The woods is full of 'em," said a citizen. "One of 'em bit my brother's leg off yesterday. Are ye loaded fer b'ar, mister?"

"No, sir," replied the young man, hastily boarding the train; "I'm only loaded for rabbits."

WIFE—"What are some of the requirements necessary to make a successful poker-player, my dear?" Husband—(thoughtfully)—"Well, a man must be cool, calculating, crafty, deceitful, selfish, sly and have a touch of meanness in his disposition." Wife (shocked)—"I shouldn't think you would care to play with such people." Husband—Oh, I most always win!"

Omaha Herald: Mrs. Muggs: "Muggs, you are a wretch."

Mr. Muggs—"Why, why. My dea, what?"

Mrs. Muggs—"Don't 'dear' me, villain. Didn't you tell me that a typewriter was a machine?"

Mr. Muggs—"And so it is."

Mrs. Muggs—"Indeed! Then why did Mrs. Wilkins say that your typewriter had beautiful blonde hair?"

IN AUSTRALIA—Briton (to Chinese bartender)—Give me an 'alf and 'alf, John. John hands him a glass half full. Briton—Blawst you, I said 'alf and 'alf. John—Yes. Allee right—halfee fulle; halfee no fullee.

A FEMALE servant sweeping out a bachelor's room found a four-penny piece on the carpet, which she carried to the owner. You may keep it for your honesty," said he. A short time afterwards he missed his gold pencil case and inquired of the girl if she had seen it. "Yes, sir," was the reply. "And

what did you do with it?" "Kept it for my honesty."

Nashville American: "I'm thinking of building me a house," said Jones to Smith last evening. "Good idea," said Smith; "how much money have you?" "About \$3,000." "Three thousand dollars; well, that will build a very neat \$2,200 house, with economy." P. S.—If you have ever built a house you will see the point.

Texas Siftings: An Austin mother said to her eldest boy the other night, at the supper table:

"Why, Franky. I never knew you to ask for preserves a second time."

Franky didn't say much, but his little brother Tommy, who was innocent of the ways of bad boys, spoke up with a guileless smile on his pure, little face, and said:

"That's because Franky lost the key he made to open the pantry. That's why he never used to want much preserves at the supper table. He used to get all he wanted before supper, but now he can't open the pantry."

After Franky's father had administered the proper corrective, and the stricken youth was left alone in the shed to repent of his crime, Tommy remarked to himself, as he sat down to study his Sunday-school lesson:

"I expect poor Franky is sorry he didn't give me some of them preserves when I asked him for them. He will know better next time."

HE SHELLED OUT ABRUPTLY.—A German poet having loaned a small amount to a friend found it very difficult to collect the same, as his friend failed to recollect the incident. Meeting his friend in need the poet said:

"If you don't pay that 17 pfennigs which you owe me, I shall have to resort to extreme measures."

"And what may they be?"

"I'll dedicate my next poem in your honor."

The friend turned pale and shelled out abruptly.

SOLID WITH THE COP.—At noon yesterday a Michigan avenue grocer made a sudden dash for his open door, and a boy who had been standing outside made just as sudden a dash for the middle of the street.

"I tell you I won't stand this much longer," shouted the grocer as he shook his fist at the boy.

"What was I doing?"

"You were breaking those carrots to pieces."

"Well, can't a fellow see if they are ripe?"

"You look out! I'll have an officer after you!"

"The one on this beat?"

"Yes, the one on this beat!"

"Rats! He's a-courting my sister, and you can imagine the sort of collar he'd give me! Just let him walk me down town and Belle will shake him like an old door mat."—*Detroit Free Press*.

AN old Dutchman, who keeps a beer saloon has his third wife, and being asked for his views of matrimony replied: "Vell, den, you see, de first time I marries for love—dot vos goot; den I marries for beauty—dot vos goot, too, about as goot as the first, but this time I marries for monish, and dis is petter as both."

NEWS

ASSIGNED—Roger & Shell, millers at Fremont, O.
BURNED—J. A. Yingling's mill at Seven Miles, O.
BURNED—Clark, Heaton & Co.'s elevator at Clarks Neb.

DISSOLVED—Birkett & Spokes, millers, Potoskey, Mich.

BURNED—Flanagan & Co.'s mill, St. Louis, Mo. Insured.

BURNED—McHose & Talbert's mill at Varson, Mich. Total loss.

BURNED—J. S. Eaton & Co.'s grist mill at Taylorsville, Miss.

BURNED—The Goodlander Mill Co.'s flour mill at Ft. Scott, Ks.

DISSOLVED—Marshall & Jones, millers at Battle Creek, Mich.

DIED—S. C. Pierce, proprietor of the grist-mill at Brodhead, Wis.

DISSOLVED PARTNERSHIP—Mapes & Comtes, Spickardsville, Mo.

SOLD OUT—C. Hanson and E. Blodgett, millers, Pewaukee, Wis.

BURNED—A. L. Bryant's flour mill at May Mich. No insurance.

A. SHEPHERD & SON, millers at Petrolia, Ont., have sold out.

DIED, Nov. 12, E. M. Jewell, of the Jewell Milling Co., Brooklyn, N. Y.

A LARGE flour warehouse is to be erected at once at Gladstone, Mich.

DIED—Henry Walker of the milling firm of Wulff, Walker & Co., Neenah, Wis.

DIED, Nov. 16, Gustave Sessinghaus, of the Sessinghaus Milling Co., St. Louis, Mo.

M. MUSSelman, of the milling firm of Riggs & Musselman, Cynthiana, Ky., died recently.

DISSOLVED—The firm of Harvey & McClure, Acton, Ont., has dissolved, John Harvey continuing.

BURNED—Nov. 17, Patterson & Sissons' mill and elevator at Camillus, N. Y. Loss \$300,000. Insurance \$175,000.

BURNED, Nov. 24, the Union Pulp Mills and the Kelso Pulp Mills at Kaukauna, Wis. The mills will be rebuilt at once.

A COMPANY with a capital of \$15,000 has been organized at Talbott, Tenn., to build a flour mill. The company is called the Talbott Mill Company. Mr. W. W. Sunderland, of Talbott, Tenn., is interested.

BURNED, Nov. 5, the Albert Lea, Minn., Roller Mills, with 25,000 bushels of wheat. Loss \$80,000. Insurance \$30,000. The company will rebuild soon probably a larger mill.

The big elevator of the St. Anthony Company, on the site of the two burned, is rapidly approaching completion. Soon after December 1 it will be ready for the reception of grain. The structure is 448 feet long and 70 feet wide, holds 2,500,000 bushels and cost about \$175,000.

The workmen in the Iowa Iron Works at Dubuque, Ia., on the night of Nov. 14 were surprised by having a bomb thrown into the shop where they were working. Fortunately no one was injured. The flooring and parts of the building were set on fire which was quickly extinguished.

N. M. LITTLEJOHN has disposed of his interest in the Saratoga Mill property at Waukesha, Wis., to C. H. Chase for \$20,000. The purchaser was long a prominent miller at Rochester, N. Y., and came West a year or more ago for his health, which has so far improved as to warrant his reengaging in business.

NEW PUBLICATIONS.

The leading features of the *Youth's Companion* announcement for 1888, just published, are its six illustrated serial stories, by Trowbridge, Stephens and others; its 200 short stories and tales of adventure; its articles by eminent writers, including the Right Hon. W. H. Gladstone, Prof. Tyndall, Gen. Lord Woolsey, Louisa M. Alcott, Gen. Geo. Crook and 100 other popular authors. Every family should take it. By sending your subscription now, with \$1.75, you will receive it free to January 1, 1888, and a full year's subscription from that date.

MESSRS. CASSELL & COMPANY, Limited, New York, announce for immediate publication, "Yule Tide," their Christmas Annual for 1887. The enormous demand for this Annual for last year exceeded by tens of thousands the edition prepared, and the Annual was out of print more than a month before publication. In order to still further increase the great popularity of the Annual, Messrs. Cassell & Company have this year made arrangements for an exceptionally attractive issue of high literary and artistic merit. The Annual for 1887 will contain a magnificent large presentation plate, suitable for framing, entitled "Nelson's First Farewell," after the celebrated painting by George Joy, exhibited at the Royal Academy, painted in the highest style of chromolithography in fourteen colors. A complete story by R. L. Stevenson, author of "Treasure Island," &c., entitled "The Misadventures of John Nicholson." Two beautiful colored pictures by Yeend King and Mary L. Gow, each printed in ten colors. Two handsome tinted plates by Hal Ludlow and C. T. Garland. Christmas entertainment for young and old, consisting of charades, puzzles, etc. etc. The price will remain as heretofore, 50 cents per copy. The International News Company, New York, have secured the entire American edition of "Yule Tide."

SILO VS. GRIST MILL.—John Gould says in the *Rural New Yorker*: "The silo presents this problem for the farmers to solve, a saving of hard work of husking and grinding the corn, costing fully one-fourth of the grain value of the crop. When all this labor and expense have been incurred, we do what? Put the meal made from the corn back upon the stalks from which it has been separated; and has any gain been made? Every one whom I have seen who has tried this plan of putting even the field corn into the silo, has fully indorsed the idea that the grain thus fed is increased in feeding value over the dry meal system, quite as much as good silage is better than dry corn fodder. I am getting my belief confirmed almost daily that the silage of the future will be a compromise between field corn and fodder corn—that we will drill in about eight or ten quarts of our best varieties of northern corn per acre, instead of the southern white corn, and will put it into the silos unhusked, not 'snapping' the ears."

NONSENSE.

WANTED TO KNOW WHAT THEY DIED OF.—A Wayne county farmer, who had a little time to spare during the drouth, went at it and created seven artificial mounds to resemble graves, in a field close to the road. Sign boards were put up and labeled: "Tramp No. 1," "Tramp No. 2," and so on through, and when the work was finished the granger went up to the house with a grin on his face and said to his wife, "That 'ere dodge will beat all the laws in Michigan to keep tramps away."

Breakfast was not yet over next morning when there was a knock on the kitchen door, and the farmer opened it to find five gaunt tramps standing in a half circle.

"You here!" he yelled, as soon as he could credit his senses. "Didn't you see those graves down by the road?"

"We did, sir," answered the eldest tramp for all. "That's just why we stopped. We want to know if they come to their death by over-eating."—*Detroit Free Press*.

"WHAT'S this gathering of boys in the shed this afternoon, James?" inquired his mother. "Well, you see, ma," replied Tim Tuffboy, "we are going to form a 'walnut trust,' on the plan of the rubber trust, you see." "I don't

quite see." "Well, this is the way: The boys all agree to get as many walnuts as ever they can an' pool in together. I'm interested, 'cause I'm goin' to store the pool."

WHY SHE BROUGHT HER THERE.—"Annabella," said a matron to the naughty little girl whose nurse brought her out on the hotel piazza to receive correction, "aren't you ashamed? What do you suppose I brought you here for?" "Don't know," she answered sulkily. "Don't know?" "No, I don't! You said you must marry off sister Mary this summer, but you didn't say a thing to me." Sister Mary's admirers grinned at mamma's discomfiture; but down they went before Annabella's parting shot, "If you did mean to marry me off, you'd better bring in some other men. I wouldn't marry one of that crowd."—*Boston Transcript*.

REPORTER—Are you going to work to-day, Pat? Pat—Sure, I dunno. Me ould woman says she'll break me head if I don't, and the union men will break me head if I do. Sure, these are hard times for decent men. I think I'll take me chances wid the ould woman.

AS GOOD AS GOLD.—"Why do you wear that nickel on your watch chain?" asked a city hall attache of a milkman who was after a board of health permit to peddle cow juice.

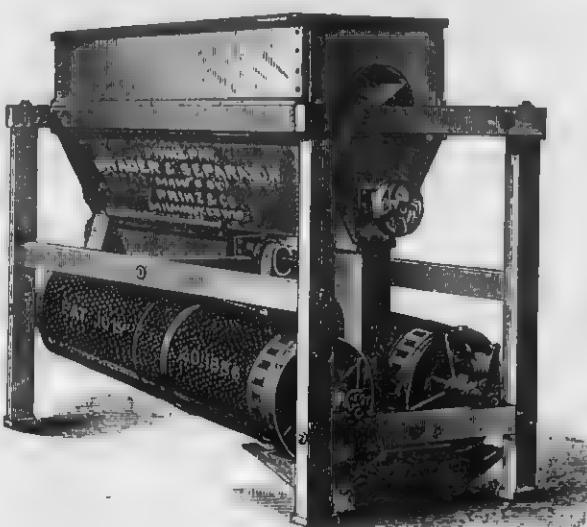
"I wear it as a reminder to get even with one of my customers," was the answer. "Over a year ago I took that nickel, which was then beautifully gold-plated, as a \$5 gold piece in payment of a bill. As soon as I detected the fraud I took it back to the woman who passed it on me, but she refused to make it good. So I attached it to my watch-chain and kept on supplying her with milk as though nothing had happened. But now every day I make her quart one-fourth water, and once a week I credit her with one-fourth the amount of her milk bill in a book which I keep for that purpose. When the sum total standing to her credit is \$4.95 she shall have pure milk once more, and not until then. She knows the milk is watered, but whenever she shows an inclination to complain I handle the nickel and say that my milk is as 'pure as gold.' That settles it."

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machine it displaced. You are at liberty to use this recommendation, and if any brother millers wish to see the machine in operation, we shall be pleased to show them. Wishing you all possible success, I remain,

Yours respectfully, CHARLES G. DEISSNER.

Office of GALESBURG ROLLER MILLS,
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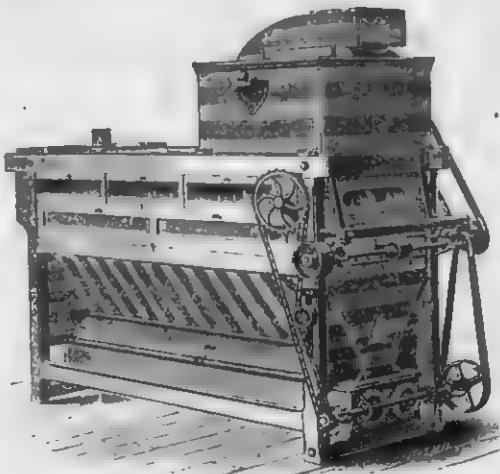
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with illustrations will run through the year. Shorter novels will follow by Cable and Stetson. Shorter fiction will appear every month.

Miscellaneous Features

will comprise several illustrated articles on Ireland by Charles D. Kay; papers touching the field of the Sunday-School Lessons, illustrated by E. L. Wilson; wild Western life, by Theodore Roosevelt; the English Cathedrals, by Mrs. Van Rossem, with illustrations by Pennell; Dr. Buckley's valuable papers on Dreams, Spiritualism, and Clairvoyance; essays in criticism, art, travel, biography, poems; cartoons; etc.

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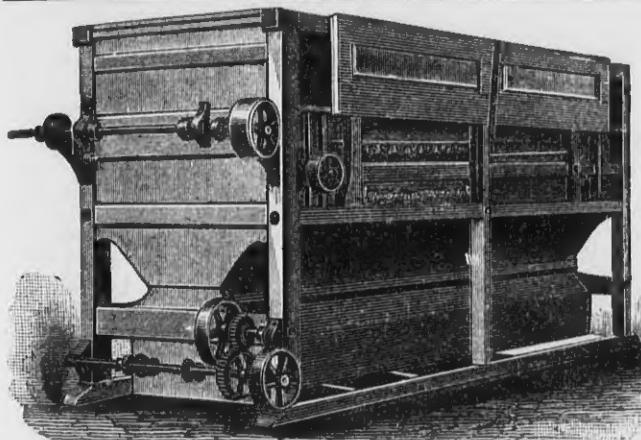
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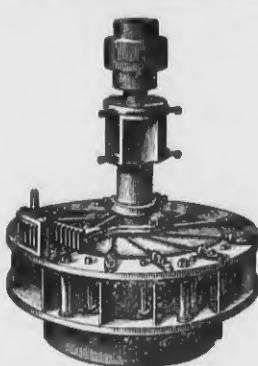
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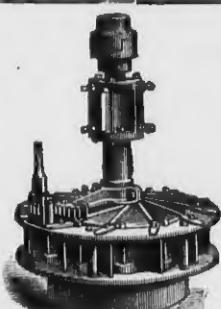
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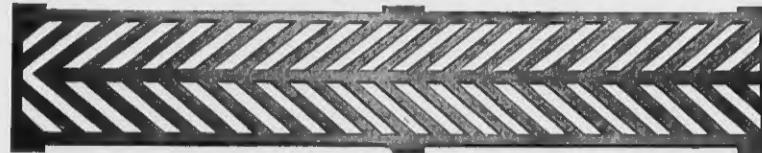
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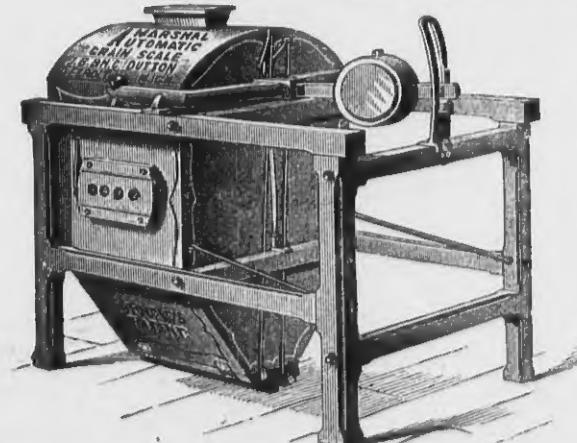


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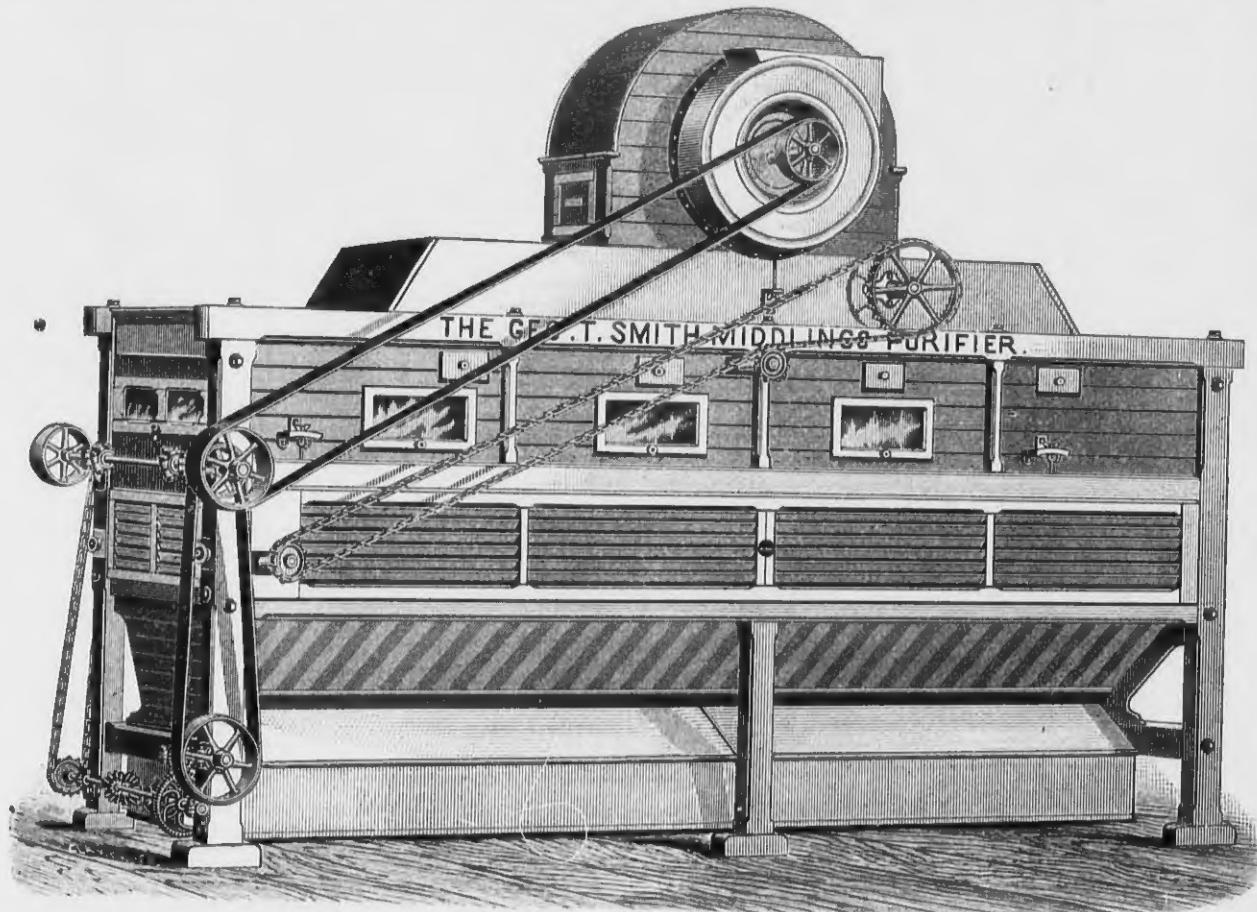
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\$80,000 Patent Decision.



The United States Circuit Court, for the Eastern District of Wisconsin, Judges Gresham and Dyer, have rendered a decision in favor of The Geo T. Smith Middlings Purifier Company in the suit of that Company and others against the Milwaukee Dust Collector Manufacturing Company.

The decision awards the Complainants upwards of eighty-thousand dollars damages and enjoins the Milwaukee Company from the further manufacture or sale of the Dust Collectors.

We have the exclusive right of Manufacturing Dust Collectors under upwards of twenty patents (all the patents in question, including the patent of Faustin Prinz).

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